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EFFICACY OF COMMERCIALLY AND NATURAL REMEDIES FOR PEST CONTROL IN ORGANIC COTTON BY SMALL-SCALE FARMERS

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OBJECTIVES

- To evaluate the efficacy of biopesticides against cotton pests under field conditions
- To develop organic pesticide methodologies for some specific cotton pests

TREATMENTS

- Untreated control
- *Metarhizium anispoliae*
- *Eco-Bb*
- *Nomuraea rileyi*
- Btk
- Pyrol

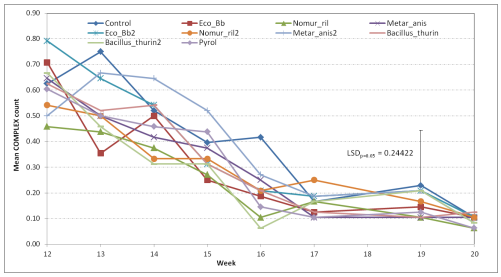
METHODS

- Trial was planted on 24 October 2011
- 4 replications using DeltaOPAL
- Treatments diluted into 2L of water
- 6 applications fortnightly
- Weekly scouting for bollworms
- Weekly rating for jassids
- Seed cotton yields determined

RESULTS

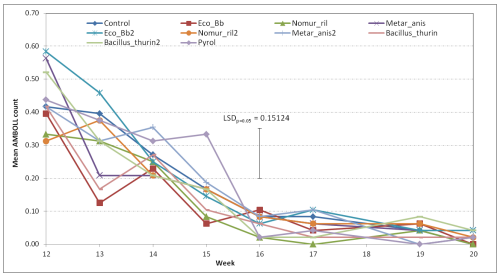
- All the treatments exhibited high leafhopper damage
- Bollworm levels were below the threshold level
- Average seed cotton yield of 3.5 t/ha was obtained

…RESULTS



Average population of different bollworms per 12 plants at different time intervals after application of different insecticides

…RESULTS



Average population of American bollworm per 12 plants at different time intervals after application of different insecticides

…RESULTS

Table 1 The average number of different bollworms found on cotton treated with various organic pesticides

Treatments	American ab	Red ab	Spiny ab	Complex
Control	0.18 a	0.000 a	0.22 a	0.40 a
M. anispoliae	0.17 ab	0.002 a	0.14 ab	0.31 ab
M. anispoliae2	0.19 ab	0.000 a	0.20 ab	0.39 ab
Eco-Bb	0.13 b	0.002 a	0.17 ab	0.30 ab
Eco-Bb2	0.21 ab	0.000 a	0.16 ab	0.38 ab
N. rileyi	0.13 b	0.000 a	0.12 ab	0.25 b
N. rileyi2	0.16 ab	0.000 a	0.14 ab	0.31 ab
Bt	0.14 b	0.000 a	0.19 ab	0.32 ab
Bt2	0.17 ab	0.000 a	0.11 b	0.28 ab
Pyrol	0.19 ab	0.000 a	0.11 b	0.31 ab
LSD (p= 0.05)	0.067	0.003	0.103	0.144
EMS (df= 27)	0.023	0.001	0.035	0.050

CONCLUSION

- Treatments had some impact on bollworm control
- No control on leafhopper populations
- More efforts is needed to control weeds at pre and post germination

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THANK YOU

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